

**LISTING OF THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A porous nano material polymer composite, comprising:  
nanosilica particles comprising nanometer order holes; and  
a polymerized monomer in said nanometer order holes,  
wherein said monomer is impregnated into said nanometer order holes and  
polymerized in the presence of a supercritical carbon dioxide fluid.  
~~wherein a polymer penetrates into nano-pores of nano-silica to form a network structure.~~
2. (Original) The porous nano material polymer composite according to claim 1, wherein the polymer is polymethyl methacrylate (PMMA).
3. (Currently Amended) A method of manufacturing a porous nanomaterial polymer composite, the method comprising:  
impregnating a monomer into nanometer order holes of a-porous nanosilica  
material particles in the presence of supercritical carbon dioxide fluid; and  
polymerizing the monomer.
4. (Previously Presented) The porous nano material polymer composite of claim 1 or claim 2, wherein said nano silica is hydrophobic silica.
5. (Previously Presented) The porous nano material polymer composite according to claim 4, wherein said hydrophobic silica is silica treated with hexamethyldisilazane.
6. (Previously Presented) The method according to claim 3, wherein the polymer is polymethyl methacrylate (PMMA).
7. (Previously Presented) The method according to claim 3 or claim 6, wherein said

porous nano material is hydrophobic silica.

8. (Previously Presented) The method according to claim 7, wherein said hydrophobic silica is nano silica treated with hexamethyldisilazane.

9. (New) The porous nanomaterial polymer composite according to claim 1, wherein the polymer is present in an amount of 5 wt% to 50 wt%.